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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,886	03/04/2004	Dai Ueda	2004_0243A	4817
513	7590	12/21/2004	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			PAPE, ZACHARY	
2033 K STREET N. W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20006-1021			2835	

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10791,886	UEDA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Zachary M. Pape	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 16-19 is/are rejected.
- 7) ☒ Claim(s) 4,5,10,14, and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/4/04</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The Invention presents", "The disclosure defined by this invention," "The disclosure describes," etc.

2. The disclosure is objected to because of the following informalities: It appears that the section "Detailed Description of the Exemplary Embodiments" on page 5, Lines 1-16 repeats the information in the "Brief Description of the Drawings".

Appropriate correction is required.

### ***Claim Objections***

3. Claims 4, 5, 10, 14 and 15 objected to because of the following informalities: in claims 4, 5, 10 and 15 the phrase "the raised faces" lacks antecedent basis.

Additionally in claim 14, the phrase "raised faces" lacks antecedent basis. Additionally in claim 4 the statement "the raised face of the uneven" is grammatically incorrect and incomplete.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 4, 5-7, 10-13, 17 rejected under 35 U.S.C. 102(b) as being anticipated by Azima et al. (Patent # 6,324,052). With respect to claim 1, Azima et al. teaches the use of a main body (137), a display unit foldably attached to the main body and incorporating a display panel (129, 150), a rear casing of the display unit (155), a speaker unit (9) contained between the rear casing (155) and the display panel (129), wherein the rear casing has first sound release holes (170, 171) for releasing the sound from the speaker unit.

With respect to claim 4, Azima et al. further teaches a rear casing with a raised uneven surface (40) as exemplified in Fig 3. for installation of the speaker with sound release holes (170) therein. (See Fig 2b.)

With respect to claim 5, Azima et al. teaches that the raised surfaces are provided on the right and left of the rear casing.

With respect to claim 6, Azima et al. further teaches that the speaker unit is provided in the rear casing by way of a sealing member (3).

With respect to claim 7, Azima et al. further teaches that the unit comprises sound release gaps (159) positioned between the periphery of the display panel and the

periphery of the rear casing. Such gaps are used for releasing sound (Column 4, Lines 13 – 17).

With respect to claim 10, the raised surfaces of Azima are mutually inclined (as illustrated in Fig 3.).

With respect to claim 11, Azima et al. further teaches that the display unit has second sound releasing holes (159) provided at the ends of the front side.

With respect to claim 12, Azima et al. teaches the limitations as applied to claim 11 above and further teaches that the second sound release holes are provided in parts positioned at the right and left sides of the front side of the display unit (Column 4, Lines 13 – 17).

With respect to claim 13, Azima et al. teaches the limitations as applied to claim 11 above and further teaches that the second sound release holes are provided in parts positioned at the upper and lower sides of the front side of the display unit as illustrated in Fig 5 (Element 159 extends from the top of the display unit to the bottom of the display unit).

With respect to claim 17, Azima et al. teaches that a dimple (170) is formed in the inside surface of the rear casing.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 3, 8, 9, 16, 18 and 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Azima et al in view of Nozawa et al. (Patent # 6,367,324) Azima et al. teaches the limitations as described in claim 1 above but fails to teach the use of a waterproof mesh sheet to cover the first sound release holes.

Nozawa et al. teaches the use of a mesh like waterproof sheet (30) attached to the inner side of a case to protect a speaker. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the waterproof mesh of Nozawa with the first sound release holes (170) of Azima et al., in order to allow the sound waves to pass through the holes and prevent the liquid from entering the speakers (Nozawa et al.: Column 3, Lines 29-33).

With respect to claim 8, Azima et al. teaches the limitations as applied above to claim 7 but fails to teach the use of a mesh sheet to cover the sound release gaps.

Nozawa et al. teaches the use of a mesh like waterproof sheet (30) attached to the inner side of a case to protect a speaker. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the waterproof mesh of Nozawa et al. with the sound release gaps (159) of Azima et al., in order to allow sound waves to pass through the holes and prevent the liquid from entering the speakers (Nozawa et al.: Column 3, Lines 29-33).

With respect to claims 3 and 9, Azima et al. in view of Nozawa et al. teaches the limitations expressed in claims 2 and 8 above but fails to disclose the use of the ranges 100 – 500 microns and 500 – 1000 microns respectively. It would have been obvious to

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one of ordinary skill in the art at the time the invention was made to use the optimum ranges expressed in claims 3 and 9, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Azima et al in view of Ohashi et al. (Patent # 6,809,927). Azima et al. teaches the limitations as applied in claim 1 above but fails to teach that the rear casing is formed of magnesium alloy.

Ohashi et al. teaches the use of forming the display case out of magnesium alloy. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the magnesium alloy case of Ohashi et al. with the rear casing of Azima et al., in order to create a superior heat-radiant casing. (Ohashi et al.: Column 4, Lines 27-34)

Claim 18 rejected under 35 U.S.C 103(a) as being unpatentable over Azima et al. in view of Smith et al. (Patent # 5,847,922). Azima et al. discloses the limitations as applied to claim 1 above except for an audio amplifier affixed to the rear casing of the display. Smith et al. teaches the use of a speaker coupled to an audio amplifier (Column 2, Lines 15-17). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the amplifier/speaker combination of Smith et al. with the rear casing of Azima et al. It is well known in the art to first amplify an audio signal and then play the signal through a speaker. In addition it would be obvious

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to place the amplifier near the speaker on the rear of the casing as disclosed in Azima et al.

Claim 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Azima et al in view of Markow (Patent # 6,304,434). Azima et al. teaches all the limitations as applied above to claim 1, but fails to teach the use of a flat piezoelectric speaker.

Markow teaches the use of piezoelectric speakers in a portable computer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the piezoelectric speakers of Markow with the teachings of Azima et al. in order to create a convenient small speaker capable of being placed in the back of a display lid (Markow: Column 3, Lines 65-69).

#### ***Allowable Subject Matter***

8. Claims 14, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary M. Pape whose telephone number is 571-272-2201. The examiner can normally be reached Mon. - Thur. & every other Fri. (8:00am - 5:00pm).

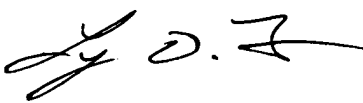


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached at 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ZMP



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